

Appl. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

**Amendments to the Claims:**

Please cancel claims 4 and 13 and amend claims 1, 12 and 15 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1 (Currently Amended). A liquid crystal display device comprising:

a liquid crystal display panel having a plurality of signal lines, a plurality of scanning lines, and a plurality of display pixels arrayed in a matrix and provided respectively near cross-points between the signal lines and the scanning lines through switching elements; and

a driver which supplies the plurality of signal lines with a display signal in a field period, and which supplies the plurality of scanning lines with a scanning signal, to apply the display signal to the plurality of display pixels, wherein

the driver includes means which supplies an initialization signal including a single pulse voltage to the signal line and supplies a first gate pulse as the scanning signal to the scanning line, thereby applying the initialization signal to the display [[pixel]] pixels,

Appln. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

and after completing the supply of the initialization  
signal voltage to the signal line and after a predetermined hold  
time thereafter supplies supplying the display signal to the  
20 signal lines and ~~supplies~~ supplying a second gate pulse as the  
scanning signal to the scanning line, thereby applying the  
display signal to the display pixel, at least one signal  
application period set within the field period, and  
the hold time is set to a time equal to or longer than a  
25 voltage-write response time of the display pixels.

Claim 2 (Previously Presented). The liquid crystal display  
device according to claim 1, wherein

the liquid crystal display panel includes a plurality of  
30 pixel electrodes arrayed in a matrix through the switching  
elements, and common electrodes opposed to the pixel electrodes,  
and

the display pixels comprise the pixel electrodes, the common  
electrodes, and liquid crystal sandwiched between the pixel  
35 electrodes and the common electrodes.

Claim 3 (Previously Presented). The liquid crystal display  
device according to claim 1, wherein each of the switching

Appln. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

elements of the liquid crystal display panel includes a thin film transistor.

Claim 4 (Cancelled).

Claim 5 (Previously Presented). The liquid crystal display device according to claim 1, wherein

the initialization signal voltage in the driver has a value equal to or higher than a maximum voltage value of the display  
5 signal.

Claim 6 (Previously Presented). The liquid crystal display device according to claim 1, wherein

the driver applies the initialization signal voltage and the display signal to the display pixels connected to the scanning  
5 lines of the liquid crystal display panel, at a predetermined time interval, sequentially for every one of the scanning lines, in the signal application period in the field period, and

the time interval is set to a value at which timings of applying the initialization signal voltage and the display signal  
10 to every one of the display pixels connected to each of the scanning lines do not overlap with each other.

Appl. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

Claim 7 (Previously Presented). The liquid crystal display device according to claim 1, wherein

application timing is set such that the driver applies the initialization signal voltage simultaneously to all of the  
5 display pixels of the liquid crystal display panel, and thereafter applies the display signal to the display pixels connected to the scanning lines of the liquid crystal display panel, at a predetermined time interval, sequentially for every one of the scanning lines, in the signal application period in  
10 the field period.

Claim 8 (Previously Presented). The liquid crystal display device according to claim 1, wherein

the driver provides three signal application periods in one field period.

Claim 9 (Previously Presented). The liquid crystal display device according to claim 8, wherein

the display signal comprises first, second, and third color component signals, and

Appln. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

5           the driver applies the initialization signal voltage and  
thereafter applies any one of the first, second, and third color  
component signals, to the display pixels connected to the  
scanning lines of the liquid crystal display panel, sequentially  
for every one of the scanning lines, in each of the signal  
10 application periods of the field period.

Claim 10 (Previously Presented). The liquid crystal display  
device according to claim 9, further comprising an illumination  
light source capable of controlling light emission color,

the illumination light source being controlled to have light  
5 emission color corresponding to any one of the first, second, and  
third color component signals that is applied by the driver in  
each signal application period.

Claim 11 (Previously Presented). The liquid crystal display  
device according to claim 8, wherein of the display signal, the  
first color component signal is a red component signal, the  
second color component signal is a green component signal, and  
5 the third color component signal is a blue component signal.

Appl. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

Claim 12 (Currently Amended). A drive control method for a liquid crystal display device which has a plurality of signal lines, a plurality of scanning lines, and a plurality of display pixels arrayed in a matrix and provided respectively near

5 cross-points between the signal lines and the scanning lines through switching elements, and which supplies the plurality of signal lines with a display signal in a field period and supplies scanning signals to the plurality of scanning lines, to apply the display signal to the plurality of display pixels, comprising:

10 providing at least one signal application period in the field period;

applying an initialization signal including a single pulse to the display pixel, by supplying ~~[[the]]~~ an initialization signal voltage to the signal line and supplying a first gate

15 pulse as the scanning signal to the scanning line; and

applying the display signal to the display pixels by supplying the display signal to the signal line and supplying a second gate pulse as the scanning signal to the scanning line after a predetermined voltage hold time has passed after

20 completion of ~~[[the]]~~ applying ~~[[of]]~~ the initialization signal voltage to the display pixels in the signal application period,

wherein the hold time is set to a time equal to or longer than a voltage-write response time of the display pixels.

Appl. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

Claim 13 (Cancelled).

Claim 14 (Previously Presented). The drive control method according to claim 12, wherein

the initialization signal voltage has a value equal to or higher than a maximum voltage value of the  
5 display signal.

Claim 15 (Currently Amended). The drive control method according to claim 12, wherein applying the initialization signal voltage includes applying the initialization signal voltage to the display pixels connected to the scanning lines, sequentially  
5 for every one of the scanning lines,

applying the display signal includes applying the display signal to the display pixels connected to the scanning lines, sequentially for every one of the scanning lines, and

application timings of applying the initialization signal  
10 voltage and the display signal for every one of the scanning  
[[line]] lines are set so as not to overlap with each other.

Claim 16 (Previously Presented). The drive control method according to claim 12, wherein

Appln. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

applying the initialization signal voltage includes applying  
the initialization signal voltage simultaneously to all display  
5 pixels connected to the scanning lines.

Claim 17 (Previously Presented).. The drive control method  
according to claim 12, wherein

providing the signal application period in the field period  
includes providing three signal application periods in one field  
5 period.

Claim 18 (Previously Presented). The drive control method  
according to claim 17, wherein

the display signal comprises first, second, and third color  
component signals, and

5 applying the initialization signal voltage includes applying  
the initialization signal voltage simultaneously to the plurality  
of display pixels connected to the scanning lines, in each of the  
signal application periods, and

applying the display signal includes applying any of the  
10 first, second, and third color component signals, to the display  
pixels connected to the scanning lines, sequentially for every  
one of the scanning lines, in each of the signal application  
periods.



Appln. No. 10/007,468  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

Claim 19 (Previously Presented). The drive control method according to claim 18, further comprising controlling light emission color of an illumination light source, wherein

controlling of light emission color includes controlling the  
5 light emission color of the light source so as to correspond to any of the first, second, and third color component signals that is applied to the display pixels in applying the display signal.